# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

|  |                     |                            | 10226/2201 (D 5771)     |  |  |  |  |
|--|---------------------|----------------------------|-------------------------|--|--|--|--|
|  | Attorney Docket No. |                            | 19226/2201 (R-5771)     |  |  |  |  |
|  | First Inve          | ntor                       | Szyperski               |  |  |  |  |
|  | Title               | PHASE-SENSITIVELY DETECTED |                         |  |  |  |  |
|  | THE                 | REDUCED                    | DIMENSIONALITY NUCLEAR  |  |  |  |  |
|  |                     | MAGNETIC RESONANCE         |                         |  |  |  |  |
|  |                     | SPECTROS                   | COPY FOR RAPID CHEMICAL |  |  |  |  |
|  |                     |                            | IGNMENT AND SECONDARY   |  |  |  |  |
|  |                     |                            | RE DETERMINATION OF     |  |  |  |  |
|  |                     | DDOTEDIO                   |                         |  |  |  |  |

|   | APPLICATION 1                            | ELEMENTS                             |                                | Expr                                 | SPECT<br>SHIFT   | ASSIGNME<br>TURE DET<br>EINS        | FOR I    | RAPID CHEMINAND SECONDA<br>INATION OF<br>139569419US |             |
|---|--|--------------------------------------|--------------------------------|--------------------------------------|--|-------------------------------------|----------|--|-------------|
| See MPEP chapter 600 concerning utility patent application contents.              |  |                                      |                                | ADDRESS TO: Commissioner for Patents |  |                                     |          | U.S.   |             |
| 1. E Fee Transmitt  |  |                                      |                                |                                      |  | OM or CD-R in                       | duplica  | ate, large table or                                  | 49 0        |
| 2. 🗷 Applicant clai   |  |                                      |                                |                                      |  | ter Program (A and/or Amino         |          | x)<br>equence Submission                             | . 01-       |
| See 37 CFR 1 3. Specification   |  | Pages 1423                           |                                |                                      | (if applicat   | le, all necessar                    | y)       | -  | ਜ           |
|   | nent set forth below)                    | ages 142]                            |                                |                                      |  | nputer Readable ation Sequence      |          |  |             |
| -   | e title of the inven                     |                                      |                                |                                      |  | CD-ROM or 0                         | _        |  |             |
|   | erence to Related A                      |                                      |                                | ,                                    |  | paper                               | ~ I. (.  | L copies, or   |             |
|   | Regarding Fed sports to sequence listing |                                      | y appucable,                   | ,                                    |  |                                     | g identi | ity of above conies                                  |             |
| or a comp   | uter program listing                     | g appendix (if ap                    | plicable)                      |                                      | c. Statements verifying identity of above copies  ACCOMPANYING APPLICATION PARTS |                                     |          |  |             |
|   | mary of the Invent                       |                                      |                                |                                      | 9. Assig   | nment Paners (                      | cover s  | heet & document(s)                                   | ,           |
| <ul> <li>Brief Desc</li> </ul>  | cription of the Drav                     |                                      |                                |                                      |  | R 3.73(b) State                     |          | Power of   |             |
|   | Description                              |                                      |                                |                                      | (when  | there is an ass                     | ignee)   | Attorney   |             |
| - Claim(s)<br>- Abstract o  | f the Disclosure                         |                                      |                                |                                      |  |                                     |          | ent (if applicable)                                  |             |
| 4. Drawing(s) (3.   |  | f Total Sheets 2                     | 81                             |                                      |  | nation Disclosu                     |          | ☐ Copies o   |             |
| 5. Oath or Declaratio   |  | [ Total Pages 2                      | -                              |                                      |  | nent (IDS)/PTC                      |          | Citations  | S           |
|   | ecuted (original or                      | сору)                                |                                |                                      |  | ninary Amenda                       |          | DED (02)   |             |
| b. 🗷 Unsigned   |  |                                      |                                |                                      |  | n Receipt Posto<br>ld be specifical |          | ,  |             |
|   | a prior application                      |                                      |                                |                                      |  | ied Copy of Pri                     | -        | •  |             |
|   | uation/divisional v<br>TION OF INVEN     | •                                    | петеа)                         |                                      |  | eign priority is                    | •        | ` '  |             |
|   | d statement attache                      |                                      | or(s)                          |                                      |  | ublication reque                    |          |  | j           |
| nameo   | in the prior applic                      |                                      |                                |                                      |  |                                     |          | must attach form                                     |             |
|   | l)(2) and 1.33(b)                        |                                      |                                |                                      | 17.  Other   | SB/35 or its equ                    | uvatent  |  |             |
| 6. Application Da   |  |                                      | * 7                            |                                      |  |                                     |          |  |             |
| 18. If a CONTINUIN or in an Application De  | ata Sheet under 37                       | i, check appropri<br>CFR 1.76:       | iate box, and                  | supply to                            | he requisite info  | rmation below                       | and in a | a preliminary amena                                  | iment,      |
| ☐ Continuation  | ☐ Divisional                             | ☐ Continuati                         | on-in-part (CI                 | P)                                   | of prior appli   | cation No.:                         |          | _/   |             |
| Prior application information: Examiner Group / Art Unit:                         |  |                                      |                                |                                      |  |                                     | _        |  |             |
| For CONTINUATION C<br>Box 5b, is considered a p<br>ncorporation <u>can only</u> b | art of the disclosure                    | of the accompany<br>portion has been | ing continuat<br>inadvertently | ion or div<br>omitted                | isional application<br>from the submitte   | n and is hereby i                   | ncorpor  | claration is supplied u<br>rated by reference. Th    | inder<br>he |
|   |  | 19. C                                | UKKESPON                       | DENCE                                | ADDRESS  |                                     |          |  |             |
| Customer Number or  |  |                                      |                                |                                      |  | or 🗷 Con                            | respond  | ence address below                                   |             |
| Name  | Nixon Peabody L                          |                                      |                                |                                      |  |                                     |          |  |             |
| Address   | Clinton Square, F                        | .O. Box 31051                        |                                |                                      |  |                                     |          |  |             |
| City  | Rochester                                |                                      | State                          | NY                                   |  | Zip Code                            |          | 14603-1051   |             |
| Country   | USA                                      | Tele                                 | ohone                          | (585) 26                             | 3-1304   | Fa                                  | x        | (585) 263-1600                                       |             |
| Vame (Print/Type)   | Alice Y. Choi                            |                                      | Registration                   | No. (Att                             | torney/Agent)  | 45,758                              |          |  |             |
| Signature   | Ali                                      |                                      |                                |                                      |  | Date                                | July     | y 28, 2003   |             |
|   |  |                                      |                                |                                      |  |                                     |          |  |             |



## FEE TRANSMITTAL FOR FY 2003

Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)1,812

|                      | Complete if Known   |  |  |  |  |
|----------------------|---------------------|--|--|--|--|
| Application Number   | To Be Assigned      |  |  |  |  |
| Filing Date          | Herewith            |  |  |  |  |
| First Named Inventor | Szyperski           |  |  |  |  |
| Examiner Name        | To Be Assigned      |  |  |  |  |
| Art Unit             | To Be Assigned      |  |  |  |  |
| Attorney Docket No.  | 19226/2201 (R-5771) |  |  |  |  |

| METHOD OF PAYMENT (check all that apply)                                  | FEE CALCULATION (continued) |                       |                      |              |  |  |
|---|-----------------------------|-----------------------|----------------------|--------------|--|--|
| Check Credit Card Money Other None Order                                  | 3. AI                       | 3. ADDITIONAL FEES    |                      |              |  |  |
| Deposit Account:  | Large                       |                       |                      | Entity       | _  |  |
| Deposit<br>Account 14-1138  | Fee<br>Code                 | Fee<br>(\$)           | Fee<br>Code          | Fee          | Fee Description  |  |
| Number  | 1051                        | 130                   | 2051                 | (\$)<br>65   | Surcharge – late filing fee or oath  |  |
|   | 1052                        | 50                    | 2052                 | 25           | Surcharge - late provisional filing fee or cover                                     |  |
| Deposit   | 1053                        | 130                   | 1053                 | 130          | Sheet Non-English anglification  |  |
| Account Nixon Peabody LLP   | 1812                        |                       | l                    |              | Non-English specification  |  |
| Name  |                             | 2,520                 | 1812                 | 2,520        | For filing a request for ex parte reexamination                                      |  |
| The Commissioner is authorized to: (check all that apply)                 | 1804                        | 920*                  | 1804                 | 920*         | Requesting publication of SIR prior to Examiner action                               |  |
| Charge fee(s) indicated below Credit any overpayments                     | 1805 ·                      | 1,840*                | 1805                 | 1,840*       | Requesting publication of SIR after Examiner   |  |
| Charge any additional fee(s)  | 1251                        | 110                   | 2251                 | 55           | action Extension for reply within first month  |  |
| Charge fee(s) indicated below, except for the filing fee                  | 1252                        | 410                   | 2252                 | 205          | Extension for reply within second month  |  |
| to the above-identified deposit account.                                  | 1253                        | 930                   | 2253                 | 465          | Extension for reply within third month   |  |
| FEE CALCULATION   | 1254                        | 1,450                 | 2254                 | 725          | Extension for reply within fourth month  |  |
| 1. BASIC FILING FEE   | 1255                        | 1,970                 | 2255                 | 985          | Extension for reply within fifth month   |  |
| Large Entity Small Entity   | 1401                        | 320                   | 2401                 | 160          | Notice of Appeal   |  |
| Fee Fee Fee Fee Description Code (\$) Code (\$) Fee Paid                  | 1402                        | 320                   | 2402                 | 160          | Filing a brief in support of an appeal   |  |
| (c)   | 1403                        | 280                   | 2403                 | 140          | Request for oral hearing   |  |
| 1001 750 2001 375 Utility filing fee 375                                  | 1451                        | 1,510                 | 1451                 | 1,510        | Petition to institute a public use proceeding  |  |
| 1002 330 2002 165 Design filing fee                                       | 1452                        | 110                   | 2452                 | 55           | Petition to revive – unavoidable   |  |
| 1003 520 2003 260 Plant filing fee  | 1453                        | 1,300                 | 2453                 | 650          | Petition to revive – unintentional   |  |
| 1004 750 2004 375 Reissue filing fee                                      | 1501                        | 1,300                 | 2501                 | 650          | Utility issue fee (or reissue)   |  |
| 1005 160 2005 80 Provisional filing fee                                   | 1502                        | 470                   | 2502                 | 235          | Design issue fee   |  |
|   | 1503                        | 630                   | 2503                 | 315          | Plant issue fee  |  |
| SUBTOTAL (1) (\$) 375   | 1460                        | 130                   | 1460                 | 130          | Petitions to the Commissioner  |  |
|   | 1807                        | 50                    | 1807                 | 50           | Processing fee under 37 CFR 1.17(q)  |  |
| 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE                               | 1806                        | 180                   | 1806                 | 180          | Submission of Information Disclosure Stmt  |  |
| Fee from Extra Claims below Fee Paid                                      | 8021                        | 40                    | 8021                 | 40           | Recording each patent assignment per property (times number of properties)           |  |
| Total Claims 133 $-20** = 113 \times 9 = 1017$                            | 1809                        | 750                   | 2809                 | 375          | Filing a submission after final rejection  |  |
| Independent $13 - 3^{**} = 10 \times 42 = 420$                            | 1810                        | 750                   | 2810                 | 375          | (37 CFR 1.129(a)) For each additional invention to be examined                       |  |
| Claims Multiple Dependent  X = 0  |                             |                       |                      |              | (37 CFR 1.129(b))  |  |
| Multiple Dependent X = 0  | 1801                        | 750                   | 2801                 | 375          | Request for Continued Examination (RCE)  |  |
| Large Entity Small Entity   | 1802                        | 900                   | 1802                 | 900          | Request for expedited examination of a design  |  |
| Fee Fee Fee Fee <u>Fee Description</u> Code (\$) Code (\$)                |                             |                       |                      |              | application  |  |
| 1202 18 2202 9 Claims in excess of 20                                     | Other fe                    | e (specify            | y)                   |              |  |  |
| 1201 84 2201 42 Independent claims in excess of 3                         |                             |                       |                      |              |  |  |
| 1203 280 2203 140 Multiple dependent claim, if not paid                   | *Reduce                     | d by Bas              | ic Filing            | Fee Paid     | SUBTOTAL (3) (\$) 0  |  |
| 1204 84 2204 42 ** Reissue independent claims over                        |                             |                       |                      |              |  |  |
| original patent   |                             |                       |                      |              | MAILING OR TRANSMISSION [37 CFR 1.8(a)]  |  |
| 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent |                             | -                     |                      | -            | ence is being:<br>ited States Postal Service on the date shown below with sufficient |  |
| SUBTOTAL (2) (\$)1,437  | •                           | pos                   | tage as f            | īrst class n | nail in an envelope addressed to: Mail Stop ,  |  |
| **or number previously paid, if greater, For Reissues, see above          | ] ,                         |                       |                      |              | ents, P. O. Box 1450, Alexandria, VA 22313-1450                                      |  |
|   |                             | I tran<br>Tra         | ismitted<br>demark ( | Office at (7 | ile on the date shown below to the United States Patent and 703)                     |  |
|   |                             |                       |                      | `            |  |  |
|   |                             | Date Signature        |                      |              |  |  |
|   | ĺ                           | Typed or printed name |                      |              |  |  |
| SUBMITTED BY  |                             |                       |                      |              | Complete (if applicable)   |  |
| Name (Print/Type) Alice Y. Choi   | Registra                    | tion No.              | 4                    | 5,758        | (585) 263-1508   |  |
|   | (Attorne                    | (Attorney/Agent)      |                      |              | receptione   |  |
| Signature Stein G. Ch.  |                             |                       |                      |              | Date July 28, 2003   |  |

DOCKET NO.:

19226/2201 (R-5771)

APPLICANT(S):

Thomas A. Szyperski and Seho Kim

TITLE:

PHASE-SENSITIVELY DETECTED REDUCED DIMENSIONALITY NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY FOR RAPID CHEMICAL SHIFT ASSIGNMENT AND SECONDARY STRUCTURE

**DETERMINATION OF PROTEINS** 

Certificate is attached to the Utility Patent Application Transmittal Letter (1 page) in duplicate of the above-named application.

"EXPRESS MAIL" NUMBER:

EV139569419US

DATE OF DEPOSIT:

July 28, 2003

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**DETERMINATION OF PROTEINS** 

Certificate is attached to the Fee Transmittal for FY 2003 (1 page) of the above-named application.

"EXPRESS MAIL" NUMBER:

EV139569419US

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July 28, 2003

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**Cheryl Sanders** 

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Signature of person mailing paper

or fee)

DOCKET NO.:

19226/2201 (R-5771)

APPLICANT(S):

Thomas A. Szyperski and Seho Kim

TITLE:

PHASE-SENSITIVELY DETECTED REDUCED DIMENSIONALITY NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY FOR RAPID CHEMICAL SHIFT ASSIGNMENT AND SECONDARY STRUCTURE

**DETERMINATION OF PROTEINS** 

Certificate is attached to the Specification, Claims, and Abstract (142 pages) and the UNSIGNED Combined Declaration and Power of Attorney (2 pages) of the above-named application.

"EXPRESS MAIL" NUMBER:

EV139569419US

DATE OF DEPOSIT:

July 28, 2003

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Cheryl Sanders

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Signature of person mailing paper

or fee)

DOCKET NO.:

19226/2201 (R-5771)

APPLICANT(S):

Thomas A. Szyperski and Seho Kim

TITLE:

PHASE-SENSITIVELY DETECTED REDUCED DIMENSIONALITY NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY FOR RAPID CHEMICAL SHIFT ASSIGNMENT AND SECONDARY STRUCTURE

**DETERMINATION OF PROTEINS** 

Certificate is attached to the Drawings (28 sheets) of the above-named application.

"EXPRESS MAIL" NUMBER:

EV139569419US

DATE OF DEPOSIT:

July 28, 2003

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**Cheryl Sanders** 

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